

The American Journal of **PATHOLOGY**

Official Publication of the American Society for Investigative Pathology

VOLUME 150, 1997
(January through June)

Editor-in-Chief

Nelson Fausto
University of Washington

Senior Editor

Steven L. Kunkel
University of Michigan

Managing Editor

Priscilla Smith
Bethesda, Maryland

Editorial Assistants

Maria Giorla
Bethesda, Maryland

Cody Mooneyhan
Bethesda, Maryland

Editor's Assistant

Tamara Carlson
Seattle, Washington

Executive Officer

Frances A. Pitlick
Bethesda, Maryland

Associate Editors

Charles E. Alpers
University of Washington

Tucker Collins
*Brigham & Women's Hospital
Harvard Medical School*

Jonathan A. Fletcher
*Harvard Medical School
Brigham & Women's Hospital*

Philip Furmanski
New York University

Avrum I. Gottlieb
*The Toronto Hospital
University of Toronto*

Stanley R. Hamilton
Johns Hopkins University

George Perry
Case Western Reserve University

Sem H. Phan
University of Michigan

Darryl Shibata
University of Southern California

William G. Stetler-Stevenson
National Institutes of Health

Lawrence M. Weiss
City of Hope National Medical Center

Editorial Board

Abul K. Abbas
Marco Baggiolini
Dorothy F. Bainton
Sandra Bigner
Kim Boekelheide
Tito Cavallo
Raju S. K. Chaganti
Yuan Chang
Robert B. Colvin
Carlos Cordon-Cardo
Jeffrey Cossman
Riccardo Dalla-Favera
Dennis W. Dickson
Vishva M. Dixit
Isaiah J. Fidler
Martha B. Furie
Giulio Gabbiani
Michael A. Gerber
Michael A. Gimbrone, Jr.
Joe W. Grisham
Nancy L. Harris
Mary J. Hendrix
Meenhard Herlyn
Setsuo Hirohashi
David Hockenbery
Ralph H. Hruban
Harriet C. Isom
Elaine S. Jaffe

Agnes B. Kane
Yashpal S. Kanwar
Robert S. Kerbel
Dontscho Kerjaschki
Daniel M. Knowles
Ricardo V. Lloyd
David N. Louis
James L. Madara
Jay M. McDonald
James K. McDougall
Glenn Merlino
George F. Murphy
Ruth J. Muschel
Brian J. Nickoloff
Paul K. Pattengale
Janardan K. Reddy
Russell Ross
Eric P. Sandgren
Eveline E. Schneeberger
Patricia Steeg
Gary E. Striker
John Q. Trojanowski
Mark L. Tykocinski
Manjeri A. Venkatachalam
Sharon M. Wahl
Peter A. Ward
Roger A. Warnke
David P. Witte

Copyright © 1997
By The American Society for Investigative Pathology



The American Journal of PATHOLOGY

CONTENTS FOR VOLUME 150

January 1997

Review

- 1 Tumors Associated with p53 Germline Mutations: A Synopsis of 91 Families
Paul Kleibues, Barbara Schäuble, Axel zur Hausen, Jacques Estève, and Hiroko Ohgaki

Short Communications

- 15 Expression of the G2-M Checkpoint Regulators Cyclin B1 and cdc2 in Nonmalignant and Malignant Human Breast Lesions: Immunocytochemical and Quantitative Image Analyses
Hisanori Kawamoto, Hirotaka Koizumi, and Toshiyuki Uchikoshi
- 25 Localization of the Cell Proliferation and Apoptosis-Associated CAS Protein in Lymphoid Neoplasms
Axel Wellmann, Laszlo Krenacs, Thierry Fest, Uwe Scherf, Ira Pastan, Mark Raffeld, and Ulrich Brinkmann
- 31 Expression of the Receptor for Complement C5a (CD88) Is Up-regulated on Reactive Astrocytes, Microglia, and Endothelial Cells in the Inflamed Human Central Nervous System
Philippe Gasque, Sim K. Singbrao, James W. Neal, Otto Götze, and B. Paul Morgan
- 43 Expression of the TSC2 Product Tuberin and Its Target Rap1 in Normal Human Tissues
Ralf Wienecke, John C. Maize Jr., Jon A. Reed, Jean de Gunzburg, Raymond S. Yeung, and Jeffrey E. DeClue
- 51 Activation of Matrix Metalloproteinase-2 from Hepatic Stellate Cells Requires Interactions with Hepatocytes
Nathalie Théret, Orlando Musso, Annie L'Helgoualc'h, and Bruno Clément
- 59 Overexpression of Granulocyte-Macrophage Colony-Stimulating Factor Induces Pulmonary Granulation Tissue Formation and Fibrosis by Induction of Transforming Growth Factor- β 1 and Myofibroblast Accumulation
Zhou Xing, Guy M. Tremblay, Patricia J. Sime, and Jack Gaudie
- 67 Prolactin-Derived Amyloid in the Aging Pituitary Gland
Per Westermark, Lars Eriksson, Ulla Engström, Sverker Eneström, and Knut Sletten
- 75 Microsatellite Instability Is Uncommon in Uterine Serous Carcinoma
Hironori Tasbiro, Sigurd F. Lax, Paul B. Gaudin, Christina Isacson, Kathleen R. Cho, and Lora Hedrick
- 81 Gain of Chromosome 17 Is the Most Frequent Abnormality Detected in Neuroblastoma by Comparative Genomic Hybridization
Dominique Plantaz, Gayatri Mobapatra, Katherine K. Matthay, Malgorzata Pellarin, Robert C. Seeger, and Burt G. Feuerstein
- 91 T Cell Receptor- $\alpha\beta$ -Deficient Mice Fail to Develop Colitis in the Absence of a Microbial Environment
Lee Dianda, Andrew M. Hanby, Nicholas A. Wright, Andor Sebesteny, Adrian C. Hayday, and Michael J. Owen

Technical Advance

- 99 Immunobead Filtration: A Novel Approach for the Isolation and Propagation of Tumor Cells
Phil D. Rye, Hanne K. Høifødt, Gunn Elin T. Øverli, and Øystein Fodstad

Regular Articles

- 107 *In Vivo* Spontaneous Neuronal to Neuroendocrine Lineage Conversion in a Subset of Neuroblastomas
Carolina Gestblom, Jeff C. Hoebner, Fredrik Hedborg, Bengt Sandstedt, and Sven Påblman
- 119 Apoptotic-Like Changes in Lewy-Body-Associated Disorders and Normal Aging in Substantia Nigral Neurons
Margaret M. Tompkins, Edward J. Basgall, Edward Zamrini, and William D. Hill

- 133 Prognostic Significance of the Proliferative Activity in Neuroblastoma
Pierre Rudolph, Thomas Lappe, Barbara Hero, Frank Bertbold, Reza Parvaresch, Dieter Harms, and Dietmar Schmidt
- 147 Detection of the Herpesvirus-Like DNA Sequences in Matched Specimens of Semen and Blood from Patients with AIDS-Related Kaposi's Sarcoma by Polymerase Chain Reaction *in Situ* Hybridization
Yao-Qi Huang, Jian Jun Li, Bernard J. Poiesz, Mark H. Kaplan, and Alvin E. Friedman-Kien
- 155 BCL-6 Protein Expression in AIDS-Related Non-Hodgkin's Lymphomas: Inverse Relationship with Epstein-Barr Virus-Encoded Latent Membrane Protein-1 Expression
Antonino Carbone, Gianluca Gaidano, Annunziata Gloghini, Cristina Pastore, Giuseppe Saglio, Umberto Tirelli, Riccardo Dalla-Favera, and Brunangelo Falini
- 167 WAF1/Cip1 Gene Polymorphism and Expression in Carcinomas of the Breast, Ovary, and Endometrium
Jason Lukas, Susan Grosben, Bahman Saffari, Ning Niu, Angela Reles, Wen-Hsiang Wen, Juan Felix, Lovell A. Jones, Frederick L. Hall, and Michael F. Press
- 177 p53 Gene Mutations Are Common in Uterine Serous Carcinoma and Occur Early in their Pathogenesis
Hironori Tashiro, Christina Isacson, Ross Levine, Robert J. Kurman, Kathleen R. Cho, and Lora Hedrick
- 187 Topographic Distribution of Homing Receptors on B and T Cells in Human Gut-Associated Lymphoid Tissue: Relation of L-Selectin and Integrin $\alpha 4\beta 7$ to Naive and Memory Phenotypes
Inger N. Farstad, Trond S. Halstensen, Dag Kvale, Olav Fausa, and Per Brandtzaeg
- 201 Elevated Expression of Fatty Acid Synthase and Fatty Acid Synthetic Activity in Colorectal Neoplasia
Asif Rasbid, Ellen S. Pizer, Michael Moga, Lea Z. Milgram, Marianna Zaburak, Gary R. Pasternack, Francis P. Kubajda, and Stanley R. Hamilton
- 209 Type I (RI) and Type II (RII) Receptors for Transforming Growth Factor- β Isoforms Are Expressed Subsequent to Transforming Growth Factor- β Ligands during Excisional Wound Repair
Leslie I. Gold, Joanne J. Sung, John W. Siebert, and Michael T. Longaker
- 223 Neutrophil Fate in Experimental Glomerular Capillary Injury in the Rat: Emigration Exceeds *in Situ* Clearance by Apoptosis
Jeremy Hughes, Richard J. Johnson, Andrew Mooney, Christian Hugo, Kathy Gordon, and John Savill
- 235 Migration Inhibitory Factor Expression in Experimentally Induced Endotoxemia
Michael Bacher, Andreas Meinhardt, Hui Y. Lan, Wei Mu, Christine N. Metz, Jason A. Chesney, Thierry Calandra, Diethard Gerns, Thomas Donnelly, Robert C. Atkins, and Richard Bucala
- 247 Involvement of Nitric Oxide in the Pathogenesis of Cyclophosphamide-Induced Hemorrhagic Cystitis
Marcus Vinicius Ponte Souza-Filho, Marcos Venício Alves Lima, Margarida Maria Lima Pompeu, Gustavo Ballejo, Fernando Queiroz Cunha, and Ronaldo de Albuquerque Ribeiro
- 257 Resistance to Cerebral Malaria in Tumor Necrosis Factor- α/β -Deficient Mice Is Associated with a Reduction of Intercellular Adhesion Molecule-1 Up-Regulation and T Helper Type 1 Response
Werner Rudin, Hans-Pietro Eugster, Gérard Bordmann, Jolanda Bonato, Matthias Müller, Mat Yamage, and Bernhard Ryffel
- 267 Restricted Expression of Cell Adhesion Kinase- β in Rat Tissues
Toshitaki Mitaka, Masanobu Shindoh, Yobichi Mochizuki, Hiroko Sasaki, Masabo Isbino, Manabu Matsuya, Takafumi Ninomiya, and Terukatsu Sasaki
- 283 *In Situ* Stromal Expression of the Urokinase/Plasmin System Correlates with Epithelial Dysplasia in Colorectal Adenomas
Isabelle Sordat, Pascal Chabert, Petr Protiva, Louis Guillo, Luca Mazzucchi, Emilia Saraga, Jean Benbattar, Chiên Trần-Thang, André L. Blum, Gian Dorta, and Bernard Sordat
- 297 Analysis of Loss of Heterozygosity on Chromosome 11q13 in Atypical Ductal Hyperplasia and *in Situ* Carcinoma of the Breast
Rodrigo F. Chuaqui, Zhengping Zhuang, Michael R. Emmert-Buck, Lance A. Liotta, and Maria J. Merino
- 305 Different Patterns of DNA Alterations Detected by Restriction Landmark Genomic Scanning in Heterogeneous Prostate Carcinomas
Noboru Konishi, Yoshio Hiasa, Mitsutoshi Nakamura, Yoshiteru Kitabori, Kenichi Matsubara, and Hisaki Nagai

- 315 Monoclonal Origin of Vulvar Intraepithelial Neoplasia and Some Vulvar Hyperplasias
James E. Tate, George L. Mutter, Kevin A. Boynton, and Christopher P. Crum
- 323 Tissue Inhibitor of Metalloproteinases-3 Is a Component of Bruch's Membrane of the Eye
Robert N. Fariss, Suneel S. Apte, Bjorn R. Olsen, Kazusbi Iwata, and Ann H. Milam
- 329 Interleukin-1 β -Induced Disruption of the Retinal Vascular Barrier of the Central Nervous System Is Mediated through Leukocyte Recruitment and Histamine
Simon D. Bamforth, Susan L. Lightman, and John Greenwood
- 341 Acetylcholine Receptor α -Subunit Isoforms Are Differentially Expressed in Thymuses from Myasthenic Patients
Francesca Andreotta, Fulvio Baggi, Carlo Antozzi, Elena Torcbiana, Pia Bernasconi, Ornella Simoncini, Ferdinando Cornelio, and Renato Mantegazza
- 349 Production of the Immunosuppressive Cytokine Interleukin-10 by Epstein-Barr-Virus-Expressing Pyothorax-Associated Lymphoma: Possible Role in the Development of Overt Lymphoma in Immunocompetent Hosts
Hiroyuki Kanno, Norifumi Naka, Yutaka Yasunaga, Keiji Iuchi, Shinobu Yamauchi, Michiko Hasbimoto, and Katsuyuki Aozasa

Animal Model

- 359 Urokinase-Type Plasminogen Activator-Deficient Mice Are Predisposed to Staphylococcal Botryomycosis, Pleuritis, and Effacement of Lymphoid Follicles
Richard L. Shapiro, Julie G. Duquette, Irene Nunes, Daniel F. Roses, Matthew N. Harris, E. Lynette Wilson, and Daniel B Rifkin

371 Correspondence

375 Acknowledgment

380 Announcements

381 Information for Authors

February 1997

Special Article

- 383 The Structural Basis of Molecular Genetic Deletions: An Integration of Classical Cytogenetic and Molecular Analyses in Pancreatic Adenocarcinoma
Daniel J. Brat, Stephan A. Hahn, Constance A. Griffin, Charles J. Yeo, Scott E. Kern, and Ralph H. Hruban

Short Communications

- 393 Differential Retinoblastoma Protein Expression in Neuroendocrine Tumors of the Lung: Potential Diagnostic Implications
Philip T. Cagle, Adel K. El-Naggar, Hong-Ji Xu, Shi-Xue Hu, and William F. Benedict
- 401 Aberrant p27^{Kip1} Expression in Endocrine and Other Tumors
Ricardo V. Lloyd, Long Jin, Xiang Qian, and Elzbieta Kulig
- 409 Correlation of High Lactate Levels in Head and Neck Tumors with Incidence of Metastasis
Stefan Walenta, Ahmad Salameh, Heidi Lyng, Jan F. Evensen, Margarethe Mitze, Einar K. Rofstad, and Wolfgang Mueller-Klieser
- 417 β -Amyloid Protein-Containing Inclusions in Skeletal Muscle of Apolipoprotein-E-Deficient Mice
T. A. Robertson, N. S. Dutton, R. N. Martins, A. D. Roses, B. A. Kakulas, and J. M. Papadimitriou
- 429 Presenilin-1-Immunoreactive Neurons Are Preserved in Late-Onset Alzheimer's Disease
Pantaleimon Giannakopoulos, Constantin Bouras, Enikő Kövari, Jünicbi Sbici, Nikolaos Tezapsidis, Patrick R. Hof, and Nikolaos K. Robakis

- 437 Immunohistochemical Detection of 4-Hydroxy-2-Nonenal Adducts in Alzheimer's Disease Is Associated with Inheritance of APOE4
Kathleen S. Montine, Sandra J. Olson, Venkataraman Amarnath, William O. Whetsell, Jr., Doyle G. Graham, and Thomas J. Montine
- 445 Encephalitogenic Potential of Myelin Basic Protein-Specific T Cells Isolated from Normal Rhesus Macaques
Edgar Meinel, Rudolf M. Hoch, Klaus Dornmair, René de Waal Malefyt, Ronald E. Bontrop, Margreet Jonker, Hans Lassmann, Reinhard Hübner, Hartmut Wekerle, and Bert A. 't Hart
- 455 Immunohistochemical Study Suggesting a Complementary Role of Kallikreins hK2 and hK3 (Prostate-Specific Antigen) in the Functional Analysis of Human Prostate Tumors
Roland R. Tremblay, David Depertbes, Bernard Têtu, and Jean Y. Dubé
- 461 Nonmalignant Epithelial Cells, Potentially Invasive in Human Endometriosis, Lack the Tumor Suppressor Molecule E-Cadherin
Regine Gaetje, Silvia Kotzian, Günter Herrmann, Rudolf Baumann, and Anna Starzinski-Powitz

Technical Advances

- 469 Detection of Rare RNA Sequences by Single-Enzyme *in Situ* Reverse Transcription-Polymerase Chain Reaction: High-Resolution Analyses of Interleukin-6 mRNA in Paraffin Sections of Lymph Nodes
Jochen Peters, Matthias Krams, Hans Heinrich Wacker, Arne Carstens, Dirk Weisner, Knut Hamann, Martin Menke, Dieter Harms, and Reza Parvaresch
- 477 Amplification of the t(2;13) and t(1;13) Translocations of Alveolar Rhabdomyosarcoma in Small Formalin-Fixed Biopsies Using a Modified Reverse Transcriptase Polymerase Chain Reaction
John Anderson, Jane Renshaw, Aidan McManus, Richard Carter, Chris Mitchell, Susan Adams, and Kathryn Pritchard-Jones

Regular Articles

- 483 Experimental Co-Expression of Vimentin and Keratin Intermediate Filaments in Human Breast Cancer Cells Results in Phenotypic Interconversion and Increased Invasive Behavior
Mary J. C. Hendrix, Elisabeth A. Seftor, Richard E. B. Seftor, and Katrina T. Trevor
- 497 Lysyl Oxidase Gene Expression in the Stromal Reaction to *in Situ* and Invasive Ductal Breast Carcinoma
Simone Peyrol, Mireille Raccuit, Françoise Gerard, Claudine Gleyzal, Jean Alexis Grimaud, and Pascal Sommer
- 509 Cellular Retinol-Binding Protein-1 Is Expressed by Distinct Subsets of Rat Arterial Smooth Muscle Cells *in Vitro* and *in Vivo*
Pascal Newville, Antoine Geinoz, Gilbert Benzonana, Mireille Redard, Françoise Gabbiani, Patricia Ropraz, and Giulio Gabbiani
- 523 Advanced Glycation End Products (AGEs) Co-Localize with AGE Receptors in the Retinal Vasculature of Diabetic and of AGE-Infused Rats
Alan W. Stitt, Yong M. Li, Thomas A. Gardiner, Richard Bucala, Desmond B. Archer, and Helen Vlassara
- 533 HIV Is Trapped and Masked in the Cytoplasm of Lymph Node Follicular Dendritic Cells
Carlo Tacchetti, Anna Favre, Luciano Moresco, Paolo Meszaros, Paola Luzzi, Mauro Truini, Fortunato Rizzo, Carlo E. Grossi, and Ermanno Ciccone
- 543 Fascin, a Sensitive New Marker for Reed-Sternberg Cells of Hodgkin's Disease: Evidence for a Dendritic or B Cell Derivation?
Geraldine S. Pinkus, Jack L. Pinkus, Erik Langhoff, Fumio Matsumura, Shigeo Yamashiro, George Mosialos, and Jonathan W. Said
- 563 Analysis of Chronic Rejection and Obliterative Arteriopathy: Possible Contributions of Donor Antigen-Presenting Cells and Lymphatic Disruption
A. J. Demetris, N. Murase, Q. Ye, F. H. F. Galvao, C. Richert, R. Saad, S. Pham, R. J. Duquesnoy, A. Zeevi, J. J. Fung, and Thomas E. Starzl
- 579 Induction of Plasminogen Activator Inhibitor 1 Gene Expression in Murine Liver by Lipopolysaccharide: Cellular Localization and Role of Endogenous Tumor Necrosis Factor- α
Colleen Fearn and David J. Loskutoff

- 591 Selective Bipotential Differentiation of Mouse Embryonic Hepatoblasts *In Vitro*
Leslie E. Rogler
- 603 Immunological Evidence for Hypochlorite-Modified Proteins in Human Kidney
Ernst Malle, Christian Woenckhaus, Georg Waeg, Hermann Esterbauer, Elisabeth F. Gröne, and Hermann-Josef Gröne
- 617 Synchronous Synthesis of α - and β -Chemokines by Cells of Diverse Lineage in the Central Nervous System of Mice with Relapses of Chronic Experimental Autoimmune Encephalomyelitis
Andrzej R. Glabinski, Marie Tani, Robert M. Strieter, Vincent K. Tuohy, and Richard M. Ransohoff
- 631 Experimental Production and Modulation of Human Cytotoxic Dermatitis in Human-Murine Chimeras
Melpo Christofidou-Solomidou, Steven M. Albelda, Frank C. Bennett, and George F. Murphy
- 641 Human Sunlight-Induced Basal-Cell-Carcinoma-Associated Dendritic Cells Are Deficient in T Cell Co-Stimulatory Molecules and Are Impaired as Antigen-Presenting Cells
Frank O. Nestle, Günter Burg, Jürg Fáb, Tamara Wrone-Smith, and Brian J. Nickoloff
- 653 Increased Expression of Matrix Metalloproteinases *in Vivo* in Scleritis Tissue and *in Vitro* in Cultured Human Scleral Fibroblasts
Nick Di Girolamo, Andrew Lloyd, Peter McCluskey, Marijan Filipic, and Denis Wakefield
- 667 No Evidence of HTLV-I Proviral Integration in Lymphoproliferative Disorders Associated with Cutaneous T-Cell Lymphoma
Gary S. Wood, John M. Schaffer, Roland Boni, Reinhard Dummer, Gunter Burg, Morishige Takeshita, and Masabiro Kikuchi
- 675 Lesional Psoriatic T Cells Contain the Capacity to Induce a T Cell Activation Molecule CDw60 on Normal Keratinocytes
Lone Skov, Lawrence S. Chan, David A. Fox, Jørgen K. Larsen, John J. Voorbees, Kevin D. Cooper, and Ole Baadsgaard
- 685 Gains, Losses, and Amplifications of DNA Sequences Evaluated by Comparative Genomic Hybridization in Chondrosarcomas
Marcelo L. Larramendy, Maija Tarkkanen, Julio Valle, Aarne H. Kivioja, Helena Ervasti, Erkki Karajarju, Tarja Salmivalli, Inkeri Elomaa, and Sakari Knuutila
- 693 Differential Expression of Cytokeratin mRNA and Protein in Normal Prostate, Prostatic Intraepithelial Neoplasia, and Invasive Carcinoma
Yongmin Yang, Junsan Hao, Xiangdang Liu, Bruce Dalkin, and Ray B. Nagle
- 705 Cyclin D1 Expression in Invasive Breast Cancer: Correlations and Prognostic Value
Paul J. van Diest, Rob J. A. M. Michalides, Ilse Jannink, Paul van der Valk, Hans L. Peterse, Johannes S. de Jong, Chris J. L. M. Meijer, and Jan P. A. Baak
- 713 Role of Nitric Oxide in Tumor Microcirculation: Blood Flow, Vascular Permeability, and Leukocyte-Endothelial Interactions
Dai Fukumura, Fan Yuan, Mitsubiro Endo, and Rakesh K. Jain
- 727 Lipid Lowering: An Important Factor in Preventing Adriamycin-Induced Heart Failure
Natascha Iliskovic and Pawan K. Singal
- 735 Inorganic Fluoride: Divergent Effects on Human Proximal Tubular Cell Viability
Richard A. Zager and Mineo Iwata
- 747 Intestinal Epithelial Restitution: Involvement of Specific Laminin Isoforms and Integrin Laminin Receptors in Wound Closure of a Transformed Model Epithelium
Margaret M. Lotz, Asma Nusrat, James L. Madara, Robert Ezzell, Ulla M. Wever, and Arthur M. Mercurio

Animal Model

- 761 Vascular Wound Healing and Neointima Formation Induced by Perivascular Electric Injury in Mice
Peter Carmeliet, Lieve Moons, Jean-Marie Stassen, Maria De Mol, Ann Boucbé, Joost J. van den Oord, Mark Kockx, and Désiré Collen

777 Announcements

March 1997

Review

- 779 Parathyroid-Hormone-Related Peptides: A New Class of Multifunctional Proteins
Tania Roskams and Valeer Desmet

Commentary

- 787 Tissue Factor in Crescentic Glomerulonephritis
Robert T. McCluskey

Special Article

- 793 Lymphocyte-Predominant Hodgkin's Disease: An Immunohistochemical Analysis of 208 Reviewed Hodgkin's Disease Cases from the German Hodgkin Study Group
Reinhard von Wasielewski, Martin Werner, Robert Fischer, Martin-Leo Hansmann, Klaus Hübner, Dirk Hasenclever, Jeremy Franklin, Michael Sextro, Volker Diehl, and Axel Georgii

Short Communications

- 805 Immunohistochemical Analysis of Bcl-2, Bcl-X, Mcl-1, and Bax in Tumors of Central and Peripheral Nervous System Origin
Stanislaw Krajewski, Maryla Krajevska, Jiri Ebrmann, Marianna Sikorska, Boleslaw Lach, Jane Chatten, and John C. Reed
- 815 Spectrum of Tumor Angiogenesis in the Bone Marrow of Children with Acute Lymphoblastic Leukemia
Antonio R. Perez-Atayde, Stephen E. Sallan, Usba Tedrow, Susan Connors, Elizabeth Allred, and Judab Folkman
- 823 Type 1 T-Helper Cell Predominance and Interleukin-12 Expression in the Gut of Patients with Crohn's Disease
Paola Parronchi, Paola Romagnani, Francesco Annunziato, Salvatore Sampognaro, Aleksej Becchio, Loretta Giannarini, Enrico Maggi, Cinzia Pupilli, Francesco Tonelli, and Sergio Romagnani
- 833 APC Mutation and the Crypt Cycle in Murine and Human Intestine
Matthew Bjerknes, Hazel Cheng, Kazy Hay, and Steven Gallinger
- 841 Allelic Loss Detected on Chromosomes 8, 10, and 17 by Fluorescence *in Situ* Hybridization Using Single-Copy P1 Probes on Isolated Nuclei from Paraffin-Embedded Prostate Tumors
Debra A. Deubler, Briana J. Williams, Xiao Lin Zhu, Michael R. Steele, L. Ralph Robr, James C. Jensen, Robert A. Stephenson, James E. Changus, Gary J. Miller, Michael J. Becich, and Arthur R. Brothman

Technical Advance

- 851 Mapping the Distribution of Neuroepithelial Bodies of the Rat Lung: A Whole-Mount Immunohistochemical Approach
Krishna P. Avadhanam, Charles G. Plopper, and Kent E. Pinkerton

Regular Articles

- 861 Co-Secretion of Parathyroid Hormone and Parathyroid-Hormone-Related Protein via a Regulated Pathway in Human Parathyroid Adenoma Cells
Hiroshi Matsubita, Mitsuko Usui, Mitsuru Hara, Yoshimasa Shisibiba, Hideki Nakazawa, Kazubo Honda, Kakuji Torigoe, Keizo Kobno, and Masashi Kurimoto
- 873 Tissue Factor Initiates Glomerular Fibrin Deposition and Promotes Major Histocompatibility Complex Class II Expression in Crescentic Glomerulonephritis
Jonathan H. Ertch, Stephen R. Holdsworth, and Peter G. Tipping
- 881 Nitric Oxide Synthase Is Expressed in Human Macrophages during Foreign Body Inflammation
Eeva Moilanen, Teemu Moilanen, Richard Knowles, Ian Charles, Yoshinori Kadoya, Najat Al-Saffar, Peter A. Revell, and Salvador Moncada
- 889 Apoptosis and Expression of Inducible Nitric Oxide Synthase Are Mutually Exclusive in Renal Mesangial Cells
Dorothea D. Nitsch, Nico Ghilardi, Heiko Mühl, Cordula Nitsch, Bernhard Brüne, and Josef Pfeilschifter

- 901 **HMGI(Y) Activation by Chromosome 6p21 Rearrangements in Multilineage Mesenchymal Cells from Pulmonary Hamartoma**
Sheng Xiao, Marcia L. Lux, Raymond Reeves, Thomas J. Hudson, and Jonathan A. Fletcher
- 911 **HMGI(Y) Expression in Human Uterine Leiomyomata: Involvement of Another High-Mobility Group Architectural Factor in a Benign Neoplasm**
Amy J. Williams, W. Lee Powell, Tucker Collins, and Cynthia C. Morton
- 919 **Preferential Expression of the Mucosal Homing Receptor Integrin $\alpha_4\beta_7$ in Gastrointestinal Non-Hodgkin's Lymphomas**
Paul Drillenbourg, Robbert van der Voort, Gerrit Koopman, Brigitte Dragosics, Joban H. J. M. van Krieken, Philip Kluin, John Meenan, Andrew I. Lazarovits, Thaddaus Radaszkiewicz, and Steven T. Pals
- 929 **Kaposi's Sarcoma Cells Express the Macrophage-Associated Antigen Mannose Receptor and Develop in Peripheral Blood Cultures of Kaposi's Sarcoma Patients**
Stefania Uccini, Maria C. Sirianni, Laura Vincenzi, Simone Topino, Antonella Stoppacciaro, Ilaria Lesnoni La Parola, Maria Capuano, Cinzia Masini, Decio Cerimele, Marina Cella, Antonio Lanzavecchia, Paola Allavena, Alberto Mantovani, Carlo D. Baroni, and Luigi P. Ruco
- 939 **Genetic Alterations and Epithelial Dysplasia in Juvenile Polyposis Syndrome and Sporadic Juvenile Polyps**
Tsung-Teb Wu, Banafsheh Rezai, Asif Rashid, Michael C. Luce, Matt C. Cayouette, Christopher Kim, Nirmal Sani, Lopa Misra, Christopher A. Moskaluk, John H. Yardley, and Stanley R. Hamilton
- 949 **Ectopic G-CSF Expression in Human Melanoma Lines Marks a Trans-Dominant Pathway of Tumor Progression**
Suzi Safarians, Steven P. Rivera, Mark D. Sternlicht, Faramarz Naeim, and Sanford H. Barsky
- 963 **Lymphocyte and Macrophage Phenotypes in Chronic Hepatitis C Infection: Correlation with Disease Activity**
Salim I. Khakoo, Paresb N. Soni, Kay Savage, David Brown, Amar P. Dhillon, Leonard W. Poulter, and Geoffrey M. Dusheiko
- 971 **Role of Neutrophils in a Rat Model of Gastric Ulcer Recurrence Caused by Interleukin-1 β**
Tosbio Watanabe, Tetsuo Arakawa, Takashi Fukuda, Kazuhide Higuchi, and Kenzo Kobayashi
- 981 **Transforming Growth Factors- β_1 , - β_2 , and - β_3 Stimulate Fibroblast Procollagen Production *in Vitro* but Are Differentially Expressed during Bleomycin-Induced Lung Fibrosis**
Robina K. Coker, Geoffrey J. Laurent, Shabirah Shabzeidi, Penny A. Lympay, Roland M. du Bois, Peter K. Jeffery, and Robin J. McAnulty
- 993 **Decreased Vascular Smooth Muscle Cell Density in Medial Degeneration of Human Abdominal Aortic Aneurysms**
Angel López-Candales, Dennis R. Holmes, Shixiong Liao, Michael J. Scott, Samuel A. Wickline, and Robert W. Thompson
- 1009 **Immunohistochemical Localization of Defensin in Human Coronary Vessels**
Elliot S. Barnathan, P. N. Ragbunath, John E. Tomaszewski, Tomas Ganz, Douglas B. Cines, and Abd Al-Roof Higazi
- 1021 **Expression Pattern and Cellular Origin of Cytokines in the Normal and *Toxoplasma gondii*-Infected Murine Brain**
Dirk Schlüter, Nadja Kaefer, Herbert Hof, Otmar D. Wiestler, and Martina Deckert-Schlüter
- 1037 **Expression of Growth Hormone in Canine Mammary Tissue and Mammary Tumors: Evidence for a Potential Autocrine/Paracrine Stimulatory Loop**
Evert van Garderen, Moniek de Wit, Wim F. Voorbout, Gerard R. Rutteman, Jan A. Mol, Hubertus Nederbragt, and Wim Misdorp
- 1049 **Molecular Analysis of the Fusion of EWS to an Orphan Nuclear Receptor Gene in Extraskelatal Myxoid Chondrosarcoma**
Rachel I. Brody, Takafumi Ueda, Aine Hamelin, Suresh C. Jhanwar, Julia A. Bridge, John H. Healey, Andrew G. Huvos, William L. Gerald, and Marc Ladanyi
- 1059 **Increased Proliferation of Osteoblastic Cells Expressing the Activating $G_s\alpha$ Mutation in Monostotic and Polyostotic Fibrous Dysplasia**
Pierre J. Marie, Cinderella de Pollak, Philippe Chanson, and Abderrabim Lomri

- 1071 Hepatocellular Neoplasms Induced by Low-Number Pancreatic Islet Transplants in Streptozotocin Diabetic Rats
Frank Dombrowski, Peter Bannasch, and Ulrich Pfeifer
- 1089 Effect of a Retroviral Immunodeficiency Syndrome on Murine Cytomegalovirus-Induced Hepatitis
Craig Douglas Peacock, Stuart Desmond Olver, and Patricia Price
- 1101 Polarity of Stimulation and Secretion of Transforming Growth Factor- β 1 by Cultured Proximal Tubular Cells
Aled O. Phillips, Robert Steadman, Kimberley Morrissey, and John D. Williams
- 1113 Simultaneous Labeling of Lipoprotein Intracellular Trafficking in Pigeon Monocyte-Derived Macrophages
Nancy L. Jones
- 1125 Pannocytes: Distinctive Cells Found in Rheumatoid Arthritis Articular Cartilage Erosions
Nathan J. Zvaifler, Van Tsai, Saifeddin Alsalamah, Johannes von Kempis, Gary S. Firestein, and Martin Lotz

1139 **Information for Authors**

April 1997

Review

- 1141 Hepatitis B Virus x Antigen in the Pathogenesis of Chronic Infections and the Development of Hepatocellular Carcinoma
Mark A. Feitelson and Ling-Xun Duan

Short Communications

- 1159 Increased Expression of Telomerase RNA Component Is Associated with Increased Cell Proliferation in Human Astrocytomas
Pauli Sallinen, Helena Miettinen, Satu-Leena Sallinen, Hannu Haapasalo, Heikki Helin, and Juba Kononen
- 1165 Polo-Like Kinase, A Novel Marker For Cellular Proliferation
Juping Yuan, Albrecht Hörlin, Björn Hock, Hans Jochen Stutte, Helga Rübsamen-Waigmann, and Klaus Strebhardt
- 1173 Evidence for Monoclonal Expansion of Epithelial Cells in Ovarian Endometrial Cysts
Haruko Jimbo, Yoshiaki Hitomi, Hiroyuki Yoshikawa, Tetsu Yano, Mikio Momoeda, Atsubiko Sakamoto, Osamu Tsutsumi, Yuji Taketani, and Hiroyasu Esumi
- 1179 Coexpression of flt-3 Ligand/flt-3 and SCF/c-kit Signal Transduction Systems in Bile-Duct-Ligated SI and W Mice
Masako Omori, Nobubiko Omori, Ritva P. Evarts, Tadabisa Teramoto, and Snorri S. Thorgeirsson
- 1189 Isolation and Characterization of Liver Epithelial Cell Lines from Wild-Type and Mutant TgN737Rpw Mice
William G. Richards, Bradley K. Yoder, Robert J. Isfort, Philippe G. Dettileux, Carmen Foster, Nancy Neilsen, Richard P. Woychik, and J. Erby Wilkinson
- 1199 Identification of Inducible Nitric Oxide Synthase in Human Macrophages Surrounding Loosened Hip Prostheses
Simon C. Watkins, William Macaulay, David Turner, Richard Kang, Harry E. Rubash, and Christopher H. Evans
- 1207 Frequent Expression of the NPM-ALK Chimeric Fusion Protein in Anaplastic Large-Cell Lymphoma, Lympho-Histiocytic Type
Stefano A. Pileri, Karen Pulford, Shigeo Mori, David Y. Mason, Elena Sabattini, Giovanna Roncador, Milena Piccioli, Claudio Ceccarelli, Pier Paolo Piccaluga, Donatella Santini, Ornella Leone, Harald Stein, and Brunangelo Falini

- 1213 Expression and Functional Analysis of Voltage-Activated Na⁺ Channels in Human Prostate Cancer Cell Lines and their Contribution to Invasion *in Vitro*
Marc E. Laniado, El-Nasir Lalani, Scott P. Fraser, Julia A. Grimes, Gurjeet Bhargal, Mustafa B. A. Djamgoz, and Paul D. Abel

- 1223 Cathepsin E Expression by Normal and Premalignant Cervical Epithelium
Fernando Mota, João H.C. Kanan, Neil Rayment, Tim Mould, Albert Singer, and Benjamin M. Chain

Technical Advances

- 1231 Epitope-Mapped Monoclonal Antibodies as Tools for Functional and Morphological Analyses of the Human Urokinase Receptor in Tumor Tissue
Thomas Luther, Viktor Magdolen, Sybille Albrecht, Michael Kasper, Christoph Riemer, Horst Kessler, Henner Graeff, Martin Müller, and Manfred Schmitt
- 1245 Immersion-Histo Polymerase Chain Reaction: A Practical Tool for Visualization of Single-Copy Genes in Tissue Sections
Langxing Pan, Tim C. Diss, Huaizheng Peng, and Peter G. Isaacson

Regular Articles

- 1253 Unmasking of an Unusual Myelin Basic Protein Epitope during the Process of Myelin Degeneration in Humans: A Potential Mechanism for the Generation of Autoantigens
A. Matsuo, G. C. Lee, K. Terai, K. Takami, W. F. Hickey, E. G. McGeer, and P. L. McGeer
- 1267 Interleukin-8 Receptor B Immunoreactivity in Brain and Neuritic Plaques of Alzheimer's Disease
MengQi Xia, ShiXin Qin, Megan McNamara, Charles Mackay, and Bradley T. Hyman
- 1275 Anatomic Dissociation between HIV-1 and Its Endogenous Inhibitor in Mucosal Tissues
Sharon M. Wahl, Paula Worley, WenWen Jin, Tessie B. McNeely, Steve Eisenberg, Claudia Fasching, Jan M. Orenstein, and Edward N. Janoff
- 1285 Novel Isoform of Myotonic Protein Kinase: Gene Product of Myotonic Dystrophy Is Localized in the Sarcoplasmic Reticulum of Skeletal Muscle
Masatake Shimokawa, Shoichi Ishiura, Noriyoshi Kameda, Masabiko Yamamoto, Noboru Sasagawa, Naoto Saitoh, Hiroyuki Sorimachi, Hidebo Ueda, Shinichi Obno, Koichi Suzuki, and Takayoshi Kobayashi
- 1297 Expression of the Putative Proto-Oncogene *His-1* in Normal and Neoplastic Tissues
Jie Li, David P. Witte, Terry Van Dyke, and David S. Askeew
- 1307 Vascular Expression of E-Selectin Is Increased in Estrogen-Receptor-Negative Breast Cancer: A Role for Tumor-Cell-Secreted Interleukin-1 α
Mai Nguyen, Christopher L. Corless, Birgit M. Kräling, Chanb Tran, Tom Atba, Joyce Bischoff, and Sanford H. Barsky
- 1315 Vascular Endothelial Growth Factor Confers a Growth Advantage *in Vitro* and *in Vivo* to Stromal Cells Cultured from Neonatal Hemangiomas
Madeleine Berard, Sylvie Sordello, Nathalie Ortega, Jean-Luc Carrier, Nicole Peyri, Michel Wassef, Nicolas Bertrand, Odile Enjolras, Ludovic Drouet, and Jean Plouet
- 1327 Prevalence of Human Papillomavirus in Middle Ear Carcinoma Associated with Chronic Otitis Media
Ying-Tai Jin, Sen-Tien Tsai, Ching Li, Kong-Chao Chang, Jing-Jou Yan, Wen-Yuan Cbao, Hock-Liew Eng, Teh-Ying Chou, Tzyy-Chou Wu, and Ib-jen Su
- 1335 Bone Morphogenetic Protein Receptors and Activin Receptors Are Highly Expressed in Ossified Ligament Tissues of Patients with Ossification of the Posterior Longitudinal Ligament
Koji Yonemori, Takeshi Imamura, Yasuhiro Ishidou, Toshitiro Okano, Shunji Matsumaga, Hiroki Yoshida, Mitsuyasu Kato, T. Kuber Sampath, Kobei Miyazono, Peter ten Dijke, and Takashi Sakou
- 1349 Tenascin, Proliferation and Subendothelial Fibronectin in Progressive Pulmonary Vascular Disease
Peter Lloyd Jones, Kyle N. Cowan, and Marlene Rabinovitch

- 1361 Normal Tubular Regeneration and Differentiation of the Post-Ischemic Kidney in Mice Lacking Vimentin
Fabiola Terzi, Roger Maunoury, Emma Colucci-Guyon, Charles Babinet, Pierre Federici, Pascale Briand, and Gérard Friedlander
- 1373 Expression of Mast-Cell-Specific Proteases in Tissues of Mice Studied by *in Situ* Hybridization
Tomoko Jippo, Kumiko Tsujino, Hyung-Min Kim, Dae-Ki Kim, Young-Mi Lee, Yukifumi Nawa, and Yukibiko Kitamura
- 1383 Multinucleated Cells in Pigmented Villonodular Synovitis and Giant Cell Tumor of Tendon Sheath Express Features of Osteoclasts
Jama M. Darling, Steven R. Goldring, Yosbitada Harada, Malcolm L. Handel, Julie Glowacki, and Ellen M. Gravalles
- 1395 Identification of an *Enterocytozoon bienersi*-Like Microsporidian Parasite in Simian-Immunodeficiency-Virus-Inoculated Macaques with Hepatobiliary Disease
Keith G. Mansfield, Angela Carville, Daniel Shvetz, John MacKey, Saul Tzipori, and Andrew A. Lackner
- 1407 Differential Pathogenesis of Lethal Mousepox in Congenic DBA/2 Mice Implicates Natural Killer Cell Receptor NKR-P1 in Necrotizing Hepatitis and the Fifth Component of Complement in Recruitment of Circulating Leukocytes to Spleen
David G. Brownstein and Lisa Gras
- 1421 Distinct Changes in the Laminin Composition of Basement Membranes in Human Seminiferous Tubules during Development and Degeneration
Ismo Virtanen, Jouni Lohi, Taneli Tani, Matti Korhonen, Robert E. Burgeson, Veli-Pekka Lehto, and Ilmo Leivo
- 1433 Hair Growth Modulation by Topical Immunophilin Ligands: Induction of Anagen, Inhibition of Massive Catagen Development, and Relative Protection from Chemotherapy-Induced Alopecia
Marcus Maurer, Bori Handjiski, and Ralf Paus
- 1443 Differential Binding of Fibroblast Growth Factor-2 and -7 to Basement Membrane Heparan Sulfate: Comparison of Normal and Abnormal Human Tissues
Andreas Friedl, Zhen Chang, Adam Tierney, and Alan C. Rapraeger
- 1457 Differentiation-Dependent p53 Regulation of Nucleotide Excision Repair in Keratinocytes
Gang Li, Vincent C. Ho, David L. Mitchell, Martin J. Trotter, and Victor A. Tron
- 1465 Genetic Changes in Intraductal Breast Cancer Detected by Comparative Genomic Hybridization
Tuula Kuukasjärvi, Minna Tanner, Sari Pennanen, Ritva Karhu, Olli-P. Kallioniemi, and Jorma Isola
- 1473 Tumor Necrosis Factor- α Expression in the Brain during Fatal Murine Cerebral Malaria: Evidence for Production by Microglia and Astrocytes
Isabelle M. Medana, Nicholas H. Hunt, and Geeta Chaudhri
- 1487 Prevention of Pancreatic Islet Xenograft Rejection by Dietary Vitamin E
Peter Vajkoczy, Hans-Anton Lebr, Christoph Hübner, Karl-E. Arfors, and Michael D. Menger

Animal Model

- 1497 Analysis of Amyloid Deposition in a Transgenic Mouse Model of Homozygous Familial Amyloidotic Polyneuropathy
Kyoko Kobno, Joana A. Palba, Kazubisa Miyakawa, Maria J. M. Saraiva, Sadabiro Ito, Tadasbi Mabuchi, William S. Blaner, Hiroyuki Iijima, Shigeo Tsukabara, Vasso Episkopou, Max E. Gottesman, Kazunori Shimada, Kiyoshi Takabasbi, Ken-ichi Yamamura, and Shuichi Maeda

1509 Announcements

May 1997

Commentary

- 1511 Molecular Markers for Prostate Cancer Metastasis: Developing Diagnostic Methods for Predicting the Aggressiveness of Prostate Cancer
John T. Isaacs

Short Communications

- 1523 Platelet-Endothelial Cell Adhesion Molecule-1 (PECAM-1/CD31) Tyrosine Phosphorylation State Changes During Vasculogenesis in the Murine Conceptus
Emese Pinter, Mark Barreuther, Theresa Lu, Beat A. Imhof, and Joseph A. Madri
- 1531 Charge-Based Binding of Complement Component C1q to the Alzheimer Amyloid β -Peptide
Scott Webster, Barry Bonnell, and Joseph Rogers

Technical Advances

- 1537 Novel Enzyme Immunoassay and Optimized DNA Extraction for the Detection of Polymerase-Chain-Reaction-Amplified Viral DNA from Paraffin-Embedded Tissue
Sabine Merkelbach, Johanna Geben, Stefan Handt, and Laszlo Füzesi
- 1547 Microdissection and Polymerase Chain Reaction Amplification of Genomic DNA from Histological Tissue Sections
Christopher A. Moskaluk and Scott E. Kern
- 1553 Sensitive *in Situ* Hybridization with Catalyzed Reporter Deposition, Streptavidin-Nanogold, and Silver Acetate Autometallography: Detection of Single-Copy Human Papillomavirus
Ingeborg Zebbe, Gerhard W. Hacker, Huici Su, Cornelia Hauser-Kronberger, James F. Hainfeld, and Raymond Tubbs
- 1563 Analysis of Estrogen Receptor Messenger RNA in Breast Carcinomas from Archival Specimens Is Predictive of Tumor Biology
Charles Carmeci, Ellen C. deConinck, Thomas Lawton, Daniel A. Bloch, and Ronald J. Weigel

Regular Articles

- 1571 Correlation of Metastasis-Related Gene Expression with Metastatic Potential in Human Prostate Carcinoma Cells Implanted in Nude Mice Using an *in Situ* Messenger RNA Hybridization Technique
Graham F. Greene, Yasubiko Kitadai, Curtis A. Pettaway, Andrew C. von Eschenbach, Corazon D. Bucana, and Isaiah J. Fidler
- 1583 Low-Grade B Cell Lymphomas of Mucosa-Associated Lymphoid Tissue (MALT-Type) Require CD40-Mediated Signaling and Th2-Type Cytokines for *in Vitro* Growth and Differentiation
Axel Greiner, Constanze Knörr, Yufen Qin, Walter Sebald, Anneliese Schimpl, Jacques Banchereau, and Hans Konrad Müller-Hermelink
- 1595 $\alpha 4\beta 7$ Integrin Expression Is Associated with the Leukemic Evolution of Human and Murine T-Cell Lymphoblastic Lymphomas
Riccardo Dolcetti, Roberto Giardini, Claudio Doglioni, Roberta Cariati, Fabrizio Pomponi, Claudia D'Orazi, Stefania Rao, Andrew I. Lazarovits, Eugene C. Butcher, and Mauro Bolocchi
- 1607 Tumor Therapy with an Antibody-Targeted Superantigen Generates a Dichotomy between Local and Systemic Immune Responses
Mark J. Litton, Mikael Doblsten, Johan Hansson, Alexander Rosendahl, Lennart Oblsson, Terje Kalland, Jan Andersson, and Ulf Andersson
- 1619 Expression of Urokinase-Type Plasminogen Activator, Stromelysin 1, Stromelysin 3, and Matrilysin Genes in Lung Carcinomas
Isabelle Bolon, Mojgan Devouassoux, Catherine Robert, Denis Moro, Christian Brambilla, and Elisabeth Brambilla
- 1631 Vitronectin Expression in Differentiating Neuroblastic Tumors: Integrin $\alpha v\beta 5$ Mediates Vitronectin-Dependent Adhesion of Retinoic-Acid-Differentiated Neuroblastoma Cells
Candece L. Gladson, Christopher Dennis, Thomas C. Rotolo, David R. Kelly, and J. Robert Grammer
- 1647 Tissue Inhibitor of Metalloproteinase-1 and -2 RNA Expression in Rat and Human Liver Fibrosis
Hermann Herbst, Thomas Wege, Stefano Milani, Giulia Pellegrini, Hans-Dieter Orzechowski, Wolf O. Bechstein, Peter Neubaus, Axel M. Gressner, and Detlef Schuppan
- 1661 Mast Cell Heterogeneity in the Gastrointestinal Tract: Variable Expression of Mouse Mast Cell Protease-1 (mMCP-1) in Intraepithelial Mucosal Mast Cells in Nematode-Infected and Normal BALB/c Mice
Cheryl L. Scudamore, Loraine McMillan, Elisabeth M. Thornton, Steven H. Wright, George F. J. Newlands, and Hugh R. P. Miller

- 1673 Vascular Endothelial Growth Factor/Vascular Permeability Factor (VEGF/VPF) in Normal and Atherosclerotic Human Arteries
Thierry Couffinbal, Marianne Kearney, Bernhard Witzentichler, Dongfen Chen, Toyooki Murobara, Douglas W. Losordo, James Symes, and Jeffrey M. Isner
- 1687 Role of Macrophage Colony-Stimulating Factor in Atherosclerosis: Studies of Osteopetrotic Mice
Jian-Hua Qiao, Jagannath Tripathi, Nibbles K. Misbra, Yan Cai, Sangeetika Tripathi, Xu-Ping Wang, Susan Imes, Michael C. Fishbein, Steven K. Clinton, Peter Libby, Aldons J. Lusis, and Tripathi B. Rajavashisth
- 1701 Role of Endothelial Selectins in Wound Repair
Meera Subramaniam, Simin Saffaripour, Livingston Van De Water, Paul S. Frenette, Tanya N. Mayadas, Richard O. Hynes, and Denisa D. Wagner
- 1711 Monocyte Recruitment and Expression of Monocyte Chemoattractant Protein-1 Are Developmentally Regulated in Remodeling Bone in the Mouse
Stepanka Volejnikova, Marina Laskari, Sandy C. Marks, Jr., and Dana T. Graves
- 1723 Quantitative Assessment of the Leukocyte Infiltrate in Ovarian Cancer and Its Relationship to the Expression of C-C Chemokines
Rupert P. M. Negus, Gordon W. H. Stamp, Joanna Hadley, and Frances R. Balkwill
- 1735 Pulmonary Response to Inhaled Antigen: Neuroimmune Interactions Promote the Recruitment of Dendritic Cells to the Lung and the Cellular Immune Response to Inhaled Antigen
Richard Kradin, James MacLean, Serge Duckett, Eveline E. Schneeberger, Christian Waeber, and Clare Pinto
- 1745 The Mechanism of Epstein-Barr Virus Infection in Nasopharyngeal Carcinoma Cells
Chin-Tarnng Lin, Chung-Ren Lin, Guet-Khim Tan, Wannbsin Chen, Aileen Ngo Dee, and Wing-Yee Chan
- 1757 Expression of Fibronectin Splicing Variants in Organ Transplantation: A Differential Pattern between Rat Cardiac Allografts and Isografts
Ana J. Coito, Laurence F. Brown, John H. Peters, Jerzy W. Kupiec-Weglinski, and Livingston Van De Water
- 1773 Mediators of Ischemia-Reperfusion Injury of Rat Lung
Michael J. Eppinger, G. Michael Deeb, Steven F. Bolling, and Peter A. Ward
- 1785 Specificity of Detection of *Chlamydia pneumoniae* in Cardiovascular Atheroma: Evaluation of the Innocent Bystander Hypothesis
Lisa A. Jackson, Lee Ann Campbell, Rodney A. Schmidt, Cho-chou Kuo, Alison L. Cappuccio, Ming Jong Lee, and J. Thomas Grayston
- 1791 Benign Clonal Keratinocyte Patches with p53 Mutations Show No Genetic Link to Synchronous Squamous Cell Precancer or Cancer in Human Skin
Zhi-Ping Ren, Afshin Abmadian, Fredrik Pontén, Monica Nistér, Cecilia Berg, Joakim Lundeberg, Mathias Ublén, and Jan Pontén
- 1805 Identification of Dysplasia in Human Colonic Aberrant Crypt Foci
I-Mei Siu, Thomas G. Pretlow, Saeid B. Amini, and Theresa P. Pretlow
- 1815 Poorly Differentiated Colonic Adenocarcinoma, Medullary Type: Clinical, Phenotypic, and Molecular Characteristics
Josef Rüschoff, Wolfgang Dietmaier, Jutta Lüttges, Gerhard Seitz, Tina Bocker, Hubert Zirngibl, Jürgen Schlegel, Hans K. Schackert, Karl W. Jauch, and Ferdinand Hofstaedter
- 1827 Expression of Estrogen Receptor Variant Messenger RNAs and Determination of Estrogen Receptor Status in Human Breast Cancer
Aibua Huang, Etienne R. Leygue, Linda Snell, Leigh C. Murphy, and Peter H. Watson
- 1835 Nitric Oxide Synthase Inhibitors Attenuate Transforming-Growth-Factor- β_1 -Stimulated Capillary Organization *in Vitro*
Andreas Papapetropoulos, Kausik M. Desai, R. Daniel Rudic, Bernd Mayer, Rong Zhang, Maria P. Ruiz-Torres, Guillermo García-Cardena, Joseph A. Madri, and William C. Sessa
- 1845 ICAM-1-Mediated Adhesion of Peripheral Blood Monocytes to the Maternal Surface of Placental Syncytiotrophoblasts: Implications for Placental Villitis
Jin Xiao, Maria Garcia-Lloret, Bonnie Winkler-Lowen, Roger Miller, Kirby Simpson, and Larry J. Guilbert

- 1861 C-C Chemokines Differentially Alter Interleukin-4 Production from Lymphocytes
Nicholas W. Lukacs, Stephan W. Chensue, William J. Karpus, Pam Lincoln, Colby Keefer, Robert M. Strieter, and Steven L. Kunkel

Animal Model

- 1869 Regulation of Local Host-Mediated Anti-Tumor Mechanisms by Cytokines: Direct and Indirect Effects on Leukocyte Recruitment and Angiogenesis
Moribiro Watanabe, Katbryn L. McCormick, Kirk Volker, John R. Ortaldo, Jon M. Wigginton, Michael J. Brunda, Robert H. Wiltrout, and William E. Fogler

1881 Announcements

1882 Information for Authors

June 1997

Short Communications

- 1885 Growth Hormone-Releasing Hormone Receptor mRNA in Acromegalic Pituitary Tumors
M. Beatriz S. Lopes, Bruce D. Gaylinn, Michael O. Thorner, and Mark H. Stoler
- 1893 TIA-1 Expression in Lymphoid Neoplasms: Identification of Subsets with Cytotoxic T Lymphocyte or Natural Killer Cell Differentiation
Raymond E. Felgar, William R. Macon, Marsba C. Kinney, Shellee Roberts, Theresa Pasba, and Kevin E. Salbany
- 1901 Nonsecretory IgA1 Autoantibodies Targeting Desmosomal Component Desmoglein 3 in Intraepidermal Neutrophilic IgA Dermatitis
Jining Wang, John Kwon, Xiang Ding, Janet A. Fairley, David T. Woodley, and Lawrence S. Chan
- 1909 Interleukin-12 Induces Relapse in Experimental Allergic Encephalomyelitis in the Lewis Rat
Terence Smith, Adrian K. Hewson, Cherry I. Kingsley, John P. Leonard, and M. Louise Cuzner
- 1919 Improved Prognosis Assessment for Patients with Bladder Carcinoma
Thomas Otto, Axel Bex, Ulrich Schmidt, Avraham Raz, and Herbert Rübner
- 1925 Loss of Heterozygosity and Microsatellite Instability in Breast Hyperplasia: No Obligate Correlation of These Genetic Alterations with Subsequent Malignancy
Masako Kasami, Cindy L. Vnencak-Jones, Suzanne Manning, William D. Dupont, and David L. Page
- 1933 Abnormal Expression of the Cell Cycle Regulators P16 and CDK4 in Alzheimer's Disease
Andrew McShea, Peggy L. R. Harris, Kevin R. Webster, Alan F. Wabl, and Mark A. Smith
- 1941 Immunophenotyping and Gene Rearrangement Analysis Provide Additional Criteria to Differentiate between Cutaneous T-Cell Lymphomas and Pseudo-T-Cell Lymphomas
Victor Bakels, Johan W. van Oostveen, Sebastian C. J. van der Putte, Chris J. L. M. Meijer, and Rein Willemze

Technical Advance

- 1951 Lack of Lymphangiogenesis in Human Primary Cutaneous Melanoma: Consequences for the Mechanism of Lymphatic Dissemination
Robert M. W. de Waal, Margarethe C. van Altena, Helmut Erhard, Ulrich H. Weidle, Peet T. G. A. Nootjen, and Dirk J. Ruiter

Regular Articles

- 1959 Genetically Null Mice Reveal a Central Role for Epidermal Growth Factor Receptor in the Differentiation of the Hair Follicle and Normal Hair Development
Laura A. Hansen, Natalie Alexander, Margaret E. Hogan, John P. Sundberg, Andrzej Dlugosz, David W. Threadgill, Terry Magnuson, and Stuart H. Yuspa
- 1977 Expression of E-Cadherin-Associated Molecules (α -, β -, and γ -Catenins and p120) in Colorectal Polyps
Ali Valizadeh, Anastasios J. Karayiannakis, Iman El-Hariry, Witold Kmiet, and Massimo Pignatelli

- 1985 Expression of Bcl-2 Family during Liver Regeneration and Identification of Bcl-x as a Delayed Early Response Gene
Shie-Pon Tzung, Nelson Fausto, and David M. Hockenbery
- 1997 Prognostic Relevance of a Novel Proliferation Marker, Ki-S11, for Soft-Tissue Sarcoma: A Multivariate Study
Pierre Rudolph, Udo Kellner, Agnès Chassevent, Françoise Collin, Françoise Bonichon, Reza Parwaresch, and Jean-Michel Coindre
- 2009 Steroid Hormone Induction and Expression Patterns of L-Plastin in Normal and Carcinomatous Prostate Tissues
Jianping Zheng, Nandini Rudra-Ganguly, Gary J. Miller, Kirsten A. Moffatt, Richard J. Cote, and Pradip Roy-Burman
- 2019 Sublytic Concentrations of the Membrane Attack Complex of Complement Induce Endothelial Interleukin-8 and Monocyte Chemoattractant Protein-1 through Nuclear Factor- κ B Activation
Kenneth S. Kilgore, Elisabeth Schmid, Thomas P. Shanley, Craig M. Flory, Vipul Maheswari, Nicole L. Tramontini, Hillary Cohen, Peter A. Ward, Hans P. Friedl, and Jeffrey S. Warren
- 2033 Adult *Schistosoma mansoni* Worms Positively Modulate Soluble Egg Antigen-Induced Inflammatory Hepatic Granuloma Formation *in Vivo*: Stereological Analysis and Immunophenotyping of Extracellular Matrix Proteins, Adhesion Molecules, and Chemokines
Werner Jacobs, Johannes Bogers, Andre Deelder, Marc Wéry, and Eric Van Marck
- 2047 Expression of Macrophage Colony-Stimulating Factor and Its Receptor in Hepatic Granulomas of Kupffer-Cell-Depleted Mice
Hiroshi Moriyama, Takashi Yamamoto, Hisakazu Takatsuka, Hajime Umez, Kunibiko Tokunaga, Takashi Nagano, Masaaki Arakawa, and Makoto Naito
- 2061 Intracellular Viral Localization in Murine Coxsackievirus-B3 Myocarditis: Ultrastructural Study by Electron Microscopic *in Situ* Hybridization
Akira Ukimura, Hirofumi Deguchi, Yasushi Kitaura, Shigekazu Fujioka, Masao Hirasawa, Keisiro Kawamura, and Kanji Hirai
- 2075 Location of Type XV Collagen in Human Tissues and Its Accumulation in the Interstitial Matrix of the Fibrotic Kidney
Päivi M. Hägg, Pasi O. Hägg, Sirkku Peltonen, Helena Autio-Harminen, and Taina Pihlajaniemi
- 2087 Troponin T Cross-Linking in Human Apoptotic Cardiomyocytes
Luisa Gorza, Roberta Menabó, Fabio Di Lisa, and Maurizio Vitadello
- 2099 Early Events of Metastasis in the Microcirculation Involve Changes in Gene Expression of Cancer Cells: Tracking mRNA Levels of Metastasizing Cancer Cells in the Chick Embryo Chorioallantoic Membrane
Toshitiro Shioda, Lance L. Munn, Martin H. Fenner, Rakesh K. Jain, and Kurt J. Isselbacher
- 2113 Expression of Functional VCAM-1 by Cultured Nasal Polyp-Derived Microvascular Endothelium
Frøde L. Jørgensen, Per Brandtzaeg, Rolf Høy, and Guttorm Haraldsen
- 2125 Antisense E1AF Transfection Restrains Oral Cancer Invasion by Reducing Matrix Metalloproteinase Activities
Kyoko Hida, Masanobu Shindoh, Motoaki Yasuda, Motoaki Hanzawa, Kosei Funaoka, Takao Kohgo, Akira Amemiya, Yasunori Totsuka, Koichi Yoshida, and Kei Fujinaga
- 2133 Phenotypic Diversity of Neoplastic Chondrocytes and Extracellular Matrix Gene Expression in Cartilaginous Neoplasms
Thomas Aigner, Susanne Dertinger, Silvia Isolda Vornehm, Jayesh Dudhia, Klaus von der Mark, and Thomas Kirchner
- 2143 Molecular Detection of Tumor-Associated Antigens Shared by Human Cutaneous Melanomas and Gliomas
Dorcas D. J. Cui, Randall E. Merchant, Robert Rand, Andrew J. Conrad, Darryl Garrison, Roderick Turner, Donald L. Morton, and Dave S. B. Hoon
- 2153 Disseminated Peritoneal Leiomyomatosis: Clonality Analysis by X Chromosome Inactivation and Cytogenetics of a Clinically Benign Smooth Muscle Proliferation
Bradley J. Quade, Catherine M. McLachlin, Valena Soto-Wright, James Zuckerman, George L. Mutter, and Cynthia C. Morton

- 2167 Experimental Evidence for the Origin of Ductal-Type Adenocarcinoma from the Islets of Langerhans
Parviz M. Pour, Lamont Weide, Guozhen Liu, Katherine Kazakoff, Mark Scheetz, Ilia Toshkov, Yoshito Ikematsu, Margery A. Fienbold, and Warren Sanger
- 2181 Free Fatty Acids Stimulate the Polymerization of Tau and Amyloid A β Peptides: *In Vitro* Evidence for a Common Effector of Pathogenesis in Alzheimer's Disease
David M. Wilson and Lester I. Binder
- 2197 Coxsackievirus B3-Induced Myocarditis: Characterization of Stable Attenuated Variants that Protect Against Infection with the Cardiovirulent Wild-Type Strain
Hongyi Zhang, Peter Morgan-Capner, Najma Latif, Yvette A. Pandolfino, Wansheng Fan, Michael J. Dunn, and Leonard C. Archard
- 2209 Spectrum and Subcellular Determinants of Fluorinated Anesthetic-Mediated Proximal Tubular Injury
Karen M. Lockhead, Evan D. Kharasch, and Richard A. Zager
- 2223 Evidence for the Genetic Control of Estradiol-Regulated Responses: Implications for Variation in Normal and Pathological Hormone-Dependent Phenotypes
John S. Griffith, Shaun M. Jensen, Jared K. Lunceford, M. Waleed Kabn, Yi Zheng, Ekundayo A.O. Falase, C. Richard Lyttle, and Cory Teuscher

Animal Models

- 2231 Differential Rescue of the Renal and Hepatic Disease in an Autosomal Recessive Polycystic Kidney Disease Mouse Mutant: A New Model to Study the Liver Lesion
Bradley K. Yoder, William G. Richards, Carla Sommadossi, William E. Sweeney, Edward J. Mchaud, J. Erby Wilkinson, Ellis D. Avner, and Richard P. Woychik
- 2243 Respiratory Reovirus 1/L Induction of Intraluminal Fibrosis: A Model for the Study of Bronchiolitis Obliterans Organizing Pneumonia
Stephen C. Bellum, Dalton Dove, Russell A. Harley, William B. Greene, Marc A. Judson, Lucille London, and Steven D. London

2255 Correction

2256 Announcements

2257 Information for Authors

2259 Index of Subjects

2283 Index of Authors